New Journal: *Environmental Processes* – An International Journal

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Historically, environmental problems have been related to public health, i.e., the occurrence of disease outbreaks resulting from unsafe potable water supply and lack of sanitation. The engineers were then called to solve such problems by providing good quality potable water, and safe collection and disposal of sewage, giving rise to *Sanitary Engineering*. Today, the society has changed mentality, the field has expanded scope, goals and approaches, and from *Sanitary Engineering* *Environmental Engineering and Science* has emerged. Environmental problems do not concern only the humans but the environment as a whole, i.e., they address protection of the whole Ecosystem. New terms, such as *Sustainable Development*, *Ecosystem Management*, *Ecosystem Footprint*, *Ecosystem Services*, and various others, have emerged. Furthermore, the scale of the problems has changed; environmental problems are now addressed at the global scale. Such problems are mainly due to overpopulation, overconsumption of products and overexploitation of resources, and can be summarized in the following rough categories, among others:

- Pollution of surface and underground aquatic systems from point and non-point sources;
- Management and treatment of wastewater
- Management of solid wastes
- Management of hazardous, toxic and radioactive wastes
- Atmospheric pollution and control
- Disappearance of flora, forests and various species, and loss of biodiversity
- Ozone layer depletion
- Global warming and climate change
- Depletion of natural resources and water
- Environmental accidents; and
- Environmental impacts of riots and wars

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Particularly climate change is a main threat; mitigation measures (i.e., the reduction of greenhouse gas emissions to pre-1990 levels, as proposed in Kyoto and other UN conferences) will not be sufficient to alleviate the adverse impacts of climate change, which we already see, in the immediate future, but may need several decades to take effect; thus, the humankind has to consider adaptation measures in responding to climate change. Relevant policies and programs are already developing by the UN, the EU, the USA, and various countries.

The United Nations Conference on the Environment and Development in Rio in 1992 identified these global problems, adopting a new thinking and a new philosophy about economic development, i.e., *sustainable development*. With this new philosophy, the man can move from the quantitative, limitless or the so-called “wild” development - which is egocentric around the man and has ignored the existence of nature and ecosystems - to a new qualitative and sustainable development, which considers fulfillment of man’s developmental goals in harmony and coexistence with nature and ecosystems. The ideals of sustainable development are, among others: to control overconsumption, to provide food security and to combat poverty, to provide education and health for everybody, to sustain a healthy natural environment, and to assure a harmonious coexistence of man and nature.

On June 26, 2013, the General Assembly of the European Water Resources Association (EWRA), held in Porto, Portugal, recognizing the need to further support research and expand the scope of this Society to address water quality issues dictated by the EU Water Framework Directive and global environmental issues, unanimously decided to launch and scientifically support the new journal *Environmental Processes*. Springer kindly accepted to publish this journal.

The aim of *Environmental Processes* is the presentation of original and timely research results by both academic researchers and professionals outside universities and research centers, including those in consulting firms, government agencies and public interest groups, on topics concerning the various processes taking place in the natural and the anthropogenic environment. The objective is to contribute towards the improvement of the understanding of environmental processes, aiming to provide solutions to environmental problems.

Among others, specific objectives of the journal are the presentation of:

- Original monitoring data, experimental data, theoretical investigations and mathematical modeling of processes in environmental systems
- Processes related to the interactions of the water, air-atmosphere, and soil-sediment environments with the humans and the biosphere
- Environmental flow processes, hydrodynamics and hydrology
- Pollutant physical, chemical and biological processes, including pollutant sources and origin, fate, dispersion and degradation, transport, deposition and accumulation, and impacts on human health and environmental quality
- Interaction processes between the social, cultural, economic and natural environments
- Evaluation of currently applied and new proposed technologies for protection of the environment
- Testing of currently used and new proposed monitoring, instrumentation and analysis techniques related to the environmental processes
- Educational, regulatory, and research needs on environmental processes and protection

Main subjects areas of the journal include:

- Environmental Fluid Mechanics, Hydrodynamics
- Water Resources Engineering and Management, Hydrology, Surface Water, Erosion and Sediment Transport, Groundwater

- Non-point Source Pollution, Urbanization, Agriculture, Best Management Practices
- Water Quality and Health of Aquatic Systems, Fate and Transport of Pollutants
- Ecosystem Management, Protection and Restoration - Ecohydraulics, Ecohydrology
- Protection and Restoration of the Coastal Environment
- Waste Minimization and Pollution Prevention, Process Modification for Pollution Prevention and Energy Efficiency, Recycling and Reuse of Wastes and Wastewater
- Management and Treatment of Solid, Liquid and Gaseous Wastes - Municipal, Industrial
- Ecological Engineering - Natural Wastewater and Sludge Treatment Systems, Constructed Wetlands, Stabilization Ponds, Land Treatment Systems
- Environmental Geotechnology, Remediation of Contaminated Sites, Bioremediation
- Management of Toxic and Hazardous Substances
- Atmospheric Pollution and Control Technology
- Impacts of Global Climatic Changes – Mitigation, Adaptation
- Energy, Buildings and the Environment
- Analysis and Forecasting of Natural Hazards - Environmental Risk Management
- Sustainable Development - Environmental/Ecological Economics
- Environmental Impact Assessment and Risk Analysis
- DPSIR framework (Drivers-Pressures-States-Impacts-Responses), Ecosystem Services, Ecological Footprint, Water Footprint, Life Cycle Assessment
- Public/Environmental Health - Industrial/Occupational Hygiene - Indoor Air Pollution
- Remote Sensing - Photogrammetric and Satellite Systems - Earth Observation Systems
- Geographical Information Systems - Environmental Applications
- Mathematical and Numerical Modeling, Systems Analysis, Operations Research, Decision Making – Environmental Applications
- Environmental Legislation and Policy, Environmental Regulation
- Environmental Education

The readership of the journal may include: Environmental engineers, environmental scientists, civil engineers, water engineers, hydraulic engineers, hydrologists, chemical engineers, mechanical engineers, agricultural engineers, rural and surveying engineers, geoinformatic engineers, geographers, geologists, biogeochemists, geophysicists, earth scientists, geomorphologists, analytical chemists, environmental chemists, climatologists, soil scientists, oceanographers, limnologists, landscape ecologists, ecologists, biologists, fishery scientists, forest scientists, epidemiologists, toxicologists, pharmacologists, environmental economists, social scientists, environmental lawyers, and computer and information scientists, holding positions as academic professors and researchers, practicing engineers and environmental professionals, managers, decision makers, public regulatory agency officials, water company officials, public health officials and policy makers, infrastructure owners/operators, risk managers, public interest groups, NGOs.

To assure the quality of the new journal, its international character and the coverage of its subjects, a group of experts holding academic positions in various universities throughout the world were initially called to serve as associate editors and members of the editorial board of the journal. Countries include the USA, France, Italy, Spain, Greece, Serbia, Turkey, China and Thailand.

The publication of *Environmental Processes* will be initially quarterly. This will assure that there is enough material of excellent quality to be published in the initial years until the journal establishes itself. Then, the number of issues and the number of papers per issue will be increased. The journal will be published both in print and electronic format. There will also be an open-access option.

The submission process will be as follows: Papers will be submitted in electronic form through the Editorial Manager, will be assigned a number, and will be sent to the Editor-in-Chief and then to the appropriate Associate Editor. To assure a proper and fair review, each paper will be sent initially to three or four reviewers for evaluation. The Associate Editors and the Editor-in-Chief will make the final decision based on reviews. Additional reviews may also be solicited. An effort will be made to keep the review time to a minimum. For this, the Editor-in-Chief and/or the Associate Editors will quickly look at submitted papers first (within 2–3 days) and provide an initial decision based on the following questions:

- Does the paper fall in the scope of the journal?
- Is it original?
- Is it of interest to the international audience?
- Is it of good technical quality? and
- Is it written in good English?

If the answer in any of these five questions is negative, then the paper is returned to the authors as unfit. This saves effort and time to the reviewers from unnecessary reviews, and also does not delay the authors from submitting the paper to another journal. Papers passing this step are sent to reviewers who are asked to express an opinion within 3 to 4 weeks. Based on reviews and editors' opinion, papers may be accepted, returned with comments for major or minor revision, or rejected.

Before concluding, I would like to thank the EWRA officials, and particularly the EWRA president Professor G. Tsakiris, for taking this initiative to launch this new journal, and for trusting me with the position of Editor-in-Chief. I would also like to thank all the involved Springer personnel for the help, the excellent collaboration and their professionalism.

We are delighted about the publication of this new journal; considering the number, magnitude and importance of today's environmental problems, and counting on Springer's experience in publishing quality journals, we are certain that the journal will be a big success. We welcome then your original quality papers, and thank you in advance for considering and supporting *Environmental Processes*.

Vassilios A. Tsihrintzis
Editor-in-Chief